

**Summary of Public Education and Outreach Activities
Conducted by the Salmon Trout Restoration
Education and Aquatic Management (STREAM)
Program, July 1, 2004-June 30, 2005**

by

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December 2006

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



Symbols and Abbreviations

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Weights and measures (metric)		General		Measures (fisheries)	
centimeter	cm	Alaska Administrative		fork length	FL
deciliter	dL	Code	AAC	mideye-to-fork	MEF
gram	g	all commonly accepted		mideye-to-tail-fork	METF
hectare	ha	abbreviations	e.g., Mr., Mrs., AM, PM, etc.	standard length	SL
kilogram	kg			total length	TL
kilometer	km	all commonly accepted			
liter	L	professional titles	e.g., Dr., Ph.D., R.N., etc.	Mathematics, statistics	
meter	m			<i>all standard mathematical</i>	
milliliter	mL	at	@	<i>signs, symbols and</i>	
millimeter	mm	compass directions:		<i>abbreviations</i>	
		east	E	alternate hypothesis	H _A
		north	N	base of natural logarithm	<i>e</i>
		south	S	catch per unit effort	CPUE
		west	W	coefficient of variation	CV
		copyright	©	common test statistics	(F, t, χ^2 , etc.)
		corporate suffixes:		confidence interval	CI
		Company	Co.	correlation coefficient	
		Corporation	Corp.	(multiple)	R
		Incorporated	Inc.	correlation coefficient	
		Limited	Ltd.	(simple)	r
		District of Columbia	D.C.	covariance	cov
		et alii (and others)	et al.	degree (angular)	°
		et cetera (and so forth)	etc.	degrees of freedom	df
		exempli gratia		expected value	<i>E</i>
		(for example)	e.g.	greater than	>
		Federal Information		greater than or equal to	≥
		Code	FIC	harvest per unit effort	HPUE
		id est (that is)	i.e.	less than	<
		latitude or longitude	lat. or long.	less than or equal to	≤
		monetary symbols		logarithm (natural)	ln
		(U.S.)	\$, ¢	logarithm (base 10)	log
		months (tables and		logarithm (specify base)	log ₂ , etc.
		figures): first three		minute (angular)	'
		letters	Jan, ..., Dec	not significant	NS
		registered trademark	®	null hypothesis	H ₀
		trademark	™	percent	%
		United States		probability	P
		(adjective)	U.S.	probability of a type I error	
		United States of		(rejection of the null	
		America (noun)	USA	hypothesis when true)	α
		U.S.C.	United States	probability of a type II error	
			Code	(acceptance of the null	
		U.S. state	use two-letter	hypothesis when false)	β
			abbreviations	second (angular)	"
			(e.g., AK, WA)	standard deviation	SD
				standard error	SE
				variance	
				population	Var
				sample	var
Weights and measures (English)					
cubic feet per second	ft ³ /s				
foot	ft				
gallon	gal				
inch	in				
mile	mi				
nautical mile	nmi				
ounce	oz				
pound	lb				
quart	qt				
yard	yd				
Time and temperature					
day	d				
degrees Celsius	°C				
degrees Fahrenheit	°F				
degrees kelvin	K				
hour	h				
minute	min				
second	s				
Physics and chemistry					
all atomic symbols					
alternating current	AC				
ampere	A				
calorie	cal				
direct current	DC				
hertz	Hz				
horsepower	hp				
hydrogen ion activity	pH				
(negative log of)					
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

FISHERY MANAGEMENT REPORT NO. 06-55

**SUMMARY OF PUBLIC EDUCATION AND OUTREACH ACTIVITIES
CONDUCTED BY THE SALMON TROUT RESTORATION EDUCATION
AND AQUATIC MANAGEMENT (STREAM) PROGRAM, JULY 1, 2004-
JUNE 30, 2005**

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ABSTRACT

Described are the activities conducted under the Salmon Trout Restoration Education and Aquatic Management (STREAM) Program, July 1, 2004-June 30, 2005. Activities are summarized in two categories; education and outreach. Education activities include: classroom salmon egg incubation, classroom visits and presentations, field educational experiences, teacher workshops/in-services, adopt-a-stream program and educational materials. The outreach component includes: stream restoration/ habitat activities; shows and special events; fulfilling requests for information, materials and equipment; and continuing and enhancing media coverage and program contributions. The new aquatic education mobile classroom trailer and its activities in FY 2005 are described. Goals for the continuing program are outlined.

Key words: Salmon Trout Restoration and Aquatic Management (STREAM) education, outreach, classroom salmon egg incubation, mobile classroom trailer, teacher workshops, Adopt-a-Stream, media coverage.

INTRODUCTION

BACKGROUND INFORMATION

Aquatic education in Southcentral Alaska began in 1989 with an experimental classroom salmon egg incubation program supported by the former Fisheries Rehabilitation Enhancement Division (FRED) of the Alaska Department of Fish and Game (ADF&G). This program was based out of the Big Lake Hatchery and initially concentrated on Matanuska-Susitna Valley schools, but by school year 1990/1991 supported projects in five Matanuska-Susitna Valley and five Anchorage area schools.

During this same time frame, FRED Division had plans to initiate a project to conduct research on stream rehabilitation techniques and structures the division was planning to construct in Anchorage area streams, with emphasis on Campbell Creek. The program was to be funded in part by the Alaska Science and Technology Foundation (ASTF), which was interested in the development of low cost stream restoration techniques that the general public and other agencies could afford and utilize along streams around Alaska. The projects would be small in design and materials would be inexpensive and easy to install.

A union of the fledgling aquatic education program and the new stream restoration effort occurred in July 1991 when the new project biologist realized there was an opportunity to combine these efforts to create an educational outreach program, which was named the Salmon Trout Restoration Education and Aquatic Management (STREAM) Program.

The main goal of the program was, as it remains today, to increase the public's awareness of Alaska's healthy wild salmon stocks through education and the offering of hands-on opportunities. In this way it is hoped that they will become personally involved and become better stewards of this valuable resource. In 1996, the STREAM Program was transferred to the Division of Sport Fish (DSF). At that time, angler education and outreach became the main goal of the STREAM Program.

The STREAM Program's activities have been modeled after other existing agency aquatic education and outreach programs such as the Oregon Department of Fish and Wildlife's (ODF&W) Salmon Trout Enhancement Program (STEP) and the federal Canada Department of Fisheries and Ocean's (DFO) Salmonid Enhancement Program (SEP) in British Columbia. Components of these programs have been incorporated into STREAM Program activities; however, these programs use activities to concentrate on enhancement of depleted salmon stocks while the ADF&G program focuses on maintaining existing healthy stocks around the state. Salmonid enhancement is not an integral part of the STREAM Program.

The STREAM Program continues to expand and supports incubation projects throughout Southcentral Alaska. Projects are located in the Anchorage area, Kenai Peninsula, Matanuska-Susitna Valley, Kodiak and Copper River/Prince William Sound areas. The program also continues to support Cooperative Extension Service (CES) classroom salmon egg incubation projects statewide on a technical basis since this program was established in the early 1990s.

The success and popularity of the STREAM program is due to the high visibility of the program. Staff are in the schools and field with the students and volunteers that have the desire to learn more about Alaska's salmon resources. This not only allows the department to inform the public, but also enables the public to become more aware of the department's concerns and to understand why and how the resource is managed.

FY 2005 ACTIVITIES (JULY 1, 2004–JUNE 30, 2005)

The STREAM Program accomplishes its goals in many ways, but primarily develops and incorporates hands-on activities to increase the public's awareness of our salmon resources. The program focuses on education and outreach as its primary tools to accomplish its goals; however, with the ever increasing demand for educational activities and materials, the time consuming small scale stream restoration outreach activities have decreased significantly since the early days of the program.

Activities conducted by the STREAM Program are summarized in two categories, education and outreach. Education activities include classroom salmon egg incubation, classroom visits and presentations, field educational experiences, teacher workshops/in-services, adopt-a-stream program and educational materials. The outreach component includes stream restoration/ habitat activities; shows and special events; fulfilling requests for information, materials and equipment; and continuing and enhancing media coverage and program contributions. The new aquatic education mobile classroom trailer was completed in FY03 and there is also a section dedicated to trailer activities. Activities for fiscal year 2005 are summarized below.

EDUCATION

Classroom Salmon Egg Incubation

As one of the original aquatic education tools, classroom salmon egg incubation activities have long been the backbone of the educational effort in Southcentral Alaska. Classroom salmon egg incubation came to Alaska using technology developed by the DFO-SEP in British Columbia. Classroom salmon egg incubation projects are used as a part of SEP's "Salmonids in the Classroom" program. Since its origins at the Big Lake Hatchery, these projects now exist in 110 ADF&G STREAM Program-sponsored schools in Southcentral Alaska and statewide in approximately 50 Cooperative Extension Service (CES)-sponsored schools. These projects continue to be for educational purposes only and not for enhancement.

Most schools are using 29-gallon aquariums with standard undergravel filter plates, powerheads and aquarium gravel. The tanks are insulated and darkened using 1-inch high density Styrofoam and the recirculated water is refrigerated using specially designed refrigeration units. If schools are on a city-treated water system they must dechlorinate their water before introduction into their tank. These systems incubate up to 250 eggs. Coho salmon *Oncorhynchus kisutch* is the species used to obtain salmon eggs for the school projects because its egg development stages from spawning to fry emergence coincide best with a school year.

Several schools utilize a technique developed by the STREAM Program when standard incubation equipment is not available. This technique uses a small 1-gallon aquarium inside of a refrigerator, which chills the water, to incubate approximately 50 salmon eggs through the fry stage.

The classroom salmon egg incubation program enables students and teachers, as well as parents, to witness and monitor the early development of a salmon from egg to fry, probably the least understood stages of the salmon's life cycle, but a period we as humans have great control over. Classes are responsible for monitoring tank temperature on a daily basis and performing water exchanges once a week. Classroom salmon egg incubation projects focus on increasing student awareness of salmonid life histories, biology, anatomy and habitat requirements of these fish.

Educational materials have been developed and continue to be developed to complement this program. The STREAM Program modified the primary version of *Salmonids in the Classroom* with permission from DFO. A *Guide to Classroom Salmon Egg Incubation in Alaska* continues to be distributed to teachers and a new pictorial guide to setting up a classroom incubator, *Classroom Incubator Setup for Dummies*, was written and printed in March 2004. A modified life-cycle poster originally produced by the Washington Department of Fish and Wildlife (WDF&W) and salmon egg vial displays constructed by high school students are also made available to educators.

In 2005, 62 Anchorage area schools conducted classroom salmon egg incubation projects (Table 1), a decrease of five from the previous year. There were 19 participating schools in the Matanuska-Susitna Valley area, a decrease of 2 schools from the previous year; 13 schools on the Kenai Peninsula, an increase of 2 schools from the previous year; 13 schools in Kodiak, an increase of 1 school from the previous year and 3 schools in the Copper River/Prince William Sound area, an increase of 2 projects from the previous year. Fairbanks area school projects were transferred to education staff in Region III in 2005, with the exception of Kenny Lake School which remained with the new Prince William Sound incubation projects.

In late September and early October, classes from Anchorage and the Matanuska-Susitna Valley came to Campbell Creek and Spring Creek, respectively, to participate in a coho salmon egg take. The children witnessed the beginning of life of a salmon and left with up to 250 fertilized eggs, which they then observed and monitored throughout the winter. Schools on the Kenai Peninsula received their coho salmon eggs from Bear Creek during a cooperative ADF&G, Cook Inlet Aquaculture (CIAA) and Seward Sealife Center egg take held at the CIAA operated Bear Creek Weir. Following the egg takes the Seward Sealife Center hosted reduced entry fee tours for the participants. This year coho salmon spawners were transported to the Lower Kenai Peninsula (Anchor River), from Bear Creek, to accommodate the expanding program in that area.

Kodiak area projects received eggs from an egg take held at the Buskin River in early November. STREAM Program staff also traveled to three outlying communities, courtesy of the Kodiak Island School District, to continue incubation projects and conduct coho salmon egg takes in those communities. Copper River/Prince William Sound area schools attended an egg take at Solomon Gulch Hatchery in Valdez.

The classroom eggs eventually hatched and turned into fry at which point the classes received salmon food supplied by the Fort Richardson Hatchery and distributed by STREAM Program staff. The majority of the coho fry were released in mid to late May in landlocked lakes: Taku-Campbell Lake in Anchorage, Matanuska Lake in Palmer, several lakes in the Kenai/Soldotna area, Island Lake in Kodiak and Strela Lake near Kenny Lake.

Table 1.-Schools participating in salmon egg incubation projects, by area, 2005.

ANCHORAGE	ANCHORAGE (Continuted)
Abbott Loop Elementary	Rogers Park Elementary
Alpenglow Elementary	Sand Lake Elementary
Anchorage Montessori	SAVE HS
Bartlett HS	Service HS
Baxter Elementary	Spring Hill Elementary
Bayshore Elementary	St. John's School
Bear Valley Elementary	Susitna Elementary
Bowman Elementary	Taku Elementary
Campbell Elementary	Trailside Elementary
Chinook Elementary	Tudor Elementary
Chugach Optional	Turnagain Elementary
Chugiak Elementary	Ursa Minor Elementary
Clark MS	Williwaw Elementary
College Gate Elementary	Willow Crest Elementary
Creekside Park Elementary	
Denali Elementary	Total 62
Eagle River Elementary	
Fairview Elementary	MATANUSKA-SUSITNA
Girdwood Jr. High	
Gladys-Wood Elementary	Big Lake Elementary
Grace Christian School	Colony MS
Gruening MS	Cottonwood Creek Elem
Hanshew MS	Finger Lake Elementary
Homestead Elementary	Goose Bay Elementary
Huffman Elementary	Houston HS
Inlet View Elementary	Larson Elementary
Kasuun Elementary	Meadow Lakes Elementary
Kincaid Elementary	Midnight Sun
King Career Center	Pioneer Peak Elementary
Klatt Elementary	Sherrod Elementary
Lake Hood Elementary	Snowshoe Elementary
Mears MS	Susitna Valley HS
Mirror Lake MS	Sutton Elementary
Mt. Iliamna Elementary	Swanson Elementary
Mt. Spurr Elementary	Talkeetna Elementary
Mt. View Elementary	Tanaina Elementary
Muldoon Elementary	Teeland Middle
North Star Elem.	Wasilla HS
North Star RTC	
Northern Lights ABC	Total 19
Nunaka Valley Elementary	
Ocean View Elementary	COPPER RIVER/PWS
O'Malley Elementary	Hermon Hutchens Elem.
Orion Elementary	Kenny Lake School
Pathways Home	Tatitlek School
Ptarmigan Elementary	
Rabbit Creek Elementary	Total 3
Ravenwood Elementary	

-continued-

Table 1.–Page 2 of 2.

KENAI PENINSULA	KODIAK
Chapman Elementary	Akhiok School
Cook Inlet Academy	East Elementary
Homer Flex	Kodiak Christian School
Homer HS	Kodiak HS
Kalifornsky Beach Elem.	Kodiak Learning Center
Mt. View Elementary	Larsen Bay School
Nikiski Elementary	Main Elementary
Ninilchik HS	North Star Elementary
Redoubt Elementary	Old Harbor School
Sears Elementary	Ouzinkie School
Sterling Elementary	Peterson Elementary
Tustumena Elementary	Port Lions School
Voznesenka School	St. Mary's School
Total 13	Total 13

Egg-take and release summary information for each area can be found in Table 2. Anchorage area events continue to account for the largest amount of participation during egg takes (2,592 students, 100 classes) and releases (1,670 students) due to the large number of schools participating. Egg takes in Anchorage were held over a 5-day period for classes to attend. An egg take was conducted on a sixth day (Saturday) for instructors who could not attend with their classes. The fry releases in Anchorage and Palmer were the only organized fry releases in the region where classes came out on a single day to release their fish. These releases were combined with a “Salmon Celebration” (hands-on activity booths) so that the students could participate in salmon related activities after releasing their fry.

Two days of school egg takes held at Spring Creek in Palmer drew an attendance of 1,015 students (41 classes), an increase from the previous year. Students from the Matanuska-Susitna Valley area then released their fry into Matanuska Lake during a combined districtwide classroom fry and catchable rainbow trout (from Anchorage area hatcheries) release. This release was combined with a Salmon Celebration.

The Kenai Peninsula school egg takes were conducted at Bear Creek in Seward and alongside the Anchor River in Anchor Point. These egg takes were attended by 342 students (16 classes). Kenai Peninsula classes have four release location options, but most opted to release their fry at Centennial Lake in Kasilof, and No Name Lake in Homer.

Kodiak area schools attended egg takes held at the Buskin River at the outlet of Buskin Lake (394 students, 25 classes) and the resultant fry were released into Island Lake. The annual districtwide Salmon Celebration for the Kodiak area was again held at the city boat harbor “spit” area.

The Copper River/Prince William Sound schools received fertilized (green) coho salmon eggs from an egg take at the privately operated Solomon Gulch Hatchery in Valdez. Four hundred and fifty five students (21 classes) attended the egg take, most of whom were from Hermon Hutchens Elementary (the entire school) in Valdez. Resultant fry were released at either Strelna Lake or returned to the hatchery.

Lakes that are approved for school fry releases are landlocked so that school-raised fry cannot mix with wild salmon in anadromous systems. Teachers may also elect to sacrifice their fry if they do not wish to release them. Classes may, by state policy, also release their fry into the system from which the eggs originated; however, projects sponsored by the STREAM Program are not offered this option in Southcentral Alaska. Twenty (20) Cooperative Extension Service sponsored incubation projects received eyed eggs from the Ft. Richardson Hatchery in November 2005. Fort Richardson Hatchery staff assisted with the packaging of those eggs.

Table 2.—School egg take and release information, 2005.

Date	Location	Stream/Lake	Number Students	Number Classes
Anchorage				
Egg Take				
09/20/04	Anchorage	Campbell Creek	599	25
09/21/04	Anchorage	Campbell Creek	293	13
09/22/04	Anchorage	Campbell Creek	345	13
09/23/04	Anchorage	Campbell Creek	638	25
09/24/04	Anchorage	Campbell Creek	517	22
09/25/04	Anchorage	Campbell Creek	200	2
Total		6	2,592	100
Released				
05/06/05	Anchorage	Taku-Campbell	1,670	70
Total		1	1,670	70
Matanuska-Susitna Valley				
Egg Take				
9/29/04	Palmer	Spring Creek	505	20
9/29/04	Palmer	Spring Creek	510	21
Total		2	1,015	41
Released				
05/10/05	Palmer	Matanuska Lake	950	38
Total		1	950	38
Kenai Peninsula				
Egg Take				
10/12/04	Seward	Bear Creek	219	9
10/13/04	Anchor Point	Bear Creek stock	123	7
Total		2	342	16
Kodiak				
Egg Take				
10/21/04	Old Harbor	Dog Creek	0	0
10/21/04	Port Lions	Crescent Lake Cr.	10	2
10/28/04	Larsen Bay	Browns Lagoon Cr.	14	2
11/03/04	Kodiak	Buskin River	394	25
Total		4	418	29
Copper R./PWS				
Egg Take				
10/05/04	Valdez	Splomon Gulch	455	21
Total		1	455	21

Classroom Visits and Presentations

Making presentations to groups of people is one of the more conventional means of getting information out to interested groups. The STREAM Program, however, prefers to be very visual and hands-on when staff visit classrooms or adult groups to present topics relating to salmon. The STREAM Program attempts to make presentations interactive, where the audience must participate in some fashion. This may mean asking questions to the audience during the presentation or by giving them a hands-on activity to do while a presentation is occurring. Hands-on activities include puzzles, rubber stamps, fish dissections, fly tying and watershed models. Presentations focus on many salmon-related topics including salmon life histories, biology, habitat requirements, anatomy (dissections), watersheds, stream ecology or fishing.

Table 3 contains summary information on classroom visits and presentations for 2005. During this year, 126 presentations (down significantly from 265 in 2004) were made to groups ranging in size from 6 to 402. Various presentations were made to 5,554 individuals, a decrease of 3,557 students from FY04, from kindergarten through adult age levels. Elementary age children received 80.5% of the presentations, 11.9% went to junior high students, 5.9% to high school students, and 1.7% to adult groups.

In 2005 the STREAM Program continued the salmon dissection program, where teachers could pick up salmon from a designated location to conduct dissections in the classroom or they could have STREAM Program staff bring fish and lead the dissection. Harbor Seafoods, a local fish processor in Kenai, donated 500 pink salmon to support the program this year. With those fish, along with Arctic char from the Fort Richardson Hatchery and school egg takes, the STREAM program distributed 756 fish, which were utilized by 4,016 students for classroom dissections this year. Once used in the classroom, almost all of the fish used for dissections in Anchorage were donated to the Alaska Zoo. The STREAM Program discontinued the very successful fly tying in the classroom program, hence the large drop in presentations and student participants. The majority of school presentations this year, as in past years, were requests for salmon dissections.

Field Educational Experiences

The STREAM Program occasionally receives requests from groups to lead outdoor presentations at a local stream or river. These talks range from assisting a Girl Scout Troop earn a nature badge to more detailed discussions with technical groups to consult on stream problems. Most of the field trips are based on a watershed perspective so that participants can become more aware of the “big picture,” that fish and aquatic organisms require more than just water to survive and how man’s impacts on a watershed can impact aquatic life. Hands-on activities usually accompany these presentations and typically several sites may be visited along a stream to discuss changes that have occurred in the system. Hands-on activities may include sampling aquatic macroinvertebrates using nets, trapping juvenile salmonids or testing water quality with test kits. All these activities are incorporated into the presentation so that the “big picture” becomes clear.

In 2005, 445 students were led on watershed field trips in the Kenai River drainage, including the Russian River near Cooper Landing and Soldotna Creek, Slikok Creek and Moose River near Soldotna. Soldotna staff also led field trips to the Anchor River on the Lower Kenai Peninsula (Table 4).

Table 3.-Classroom visits and presentations conducted by the ADF&G STREAM Program, 2005.

Date	School	# Students	Age Group	Subject
07/29*	Sutton Elementary	20	Elementary	Life cycle, fish prints
08/25**	Soldotna Elementary	24	Elementary	Watershed presentation
08/26**	Mt. View Elementary	40	Elementary	Watershed presentation
08/26**	Sterling Elementary	45	Elementary	Watershed presentation
09/09*	Swanson Elementary	25	Elementary	Watershed presentation, incubation project
09/14	Hermon Hutchens Elem	402	Elementary	Life cycle, incubation project assembly
09/15	Kenny Lake School	20	Elementary	Salmon dissection, life cycle/Chucky Chum
09/16*	Finger Lake Elementary	80	Elementary	Watershed presentation, incubation project
09/17*	Wasilla HS	25	High School	Watershed presentation, incubation project
09/17*	Goose Bay Elementary	30	Elementary	Watershed presentation, incubation project
10/06	Tatitlek School	8	Elementary	Salmon dissection
10/06	Tatitlek School	16	MS/HS	Dissection, life cycle, habitat, incubation project
10/07	Hermon Hutchens Elem	200	Elementary	Salmon dissection (8 classes)
10/15**	Redoubt Elementary	25	Elementary	Watershed presentation
10/20	Birchwood ABC	50	Elementary	Ecosystems and watersheds
10/21	Old Harbor School	35	Elementary	Dissection, lc/Chucky Chum, other activities
10/21	Old Harbor School	18	MS/HS	Dissection, scales, careers
10/25	Inlet View Elementary	40	Elementary	Watershed, fish and macroinvertebrate ID
10/25	Main Elementary	45	Elementary	Salmon dissection (2 classes)
10/25	East/Kod. Christian	73	Elementary	Salmon dissection (3 classes)
10/26	SAVE High School	50	High School	Watershed, fish and macroinvertebrate ID
10/26	St. Mary's School	48	Elem/MS	Salmon dissection (3 classes)
10/26	Peterson Elementary	35	High School	Salmon dissection (2 classes)
10/26**	Kalifornsky Beach El.	27	Elementary	Watershed presentation
10/27	Clark Middle School	120	Junior High	Watershed, fish and macroinvertebrate ID
10/27**	Nikiski Elementary	26	Elementary	Watershed presentation
10/27**	Cook Inlet Academy	35	Elementary	Incubation tank water quality discussion/tests
10/28	Mears Middle School	120	Junior High	Watershed, fish and macroinvertebrate ID
10/28	Larsen Bay School	18	Elem/MS/HS	Salmon dissection – entire school
10/29	Port Lions School	16	Elementary	Dissection, life cycle/Chucky Cum
10/29	Port Lions School	20	MS/HS	Dissection, scales, careers, macroinvertebrates
11/02	Birchwood	75	Elementary	Watershed, fish and macroinvertebrate ID
11/02**	Mt. View Elementary	20	Elementary	Watershed model presentation
11/02**	Mt. View Elementary	19	Elementary	Watershed model presentation
11/03	Pathways Home	32	High School	Watershed, fish and macroinvertebrate ID
11/04	Ouzinkie School	23	MS/HS	Salmon dissection via 2-way television
11/04**	Chapman Elementary	21	Elementary	Salmon dissection (1 class) + pike
11/05**	Kenai Pen. College	28	High School	Career day lecture
11/08*	Swanson Elementary	98	Elementary	Salmon dissection (5 classes)
11/08**	Kalifornsky Beach El.	26	Elementary	Watershed model presentation
11/09*	Cottonwood Creek El.	30	Elementary	Salmon dissection (1 class)

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Table 3.-Page 2 of 4.

Date	School	# Students	Age Group	Subject
11/09*	Goose Bay Elementary	45	Elementary	Salmon dissection (2 classes)
11/10*	Colony MS	25	Junior High	Salmon dissection (1 class)
11/10*	Snowshoe Elementary	50	Elementary	Salmon dissection (2 classes)
11/10**	Voznesenka School	24	Elementary	Watershed and watershed model presentation
11/11*	Colony MS	75	Junior High	Salmon dissection (3 classes)
11/19*	Pioneer Peak Elem.	75	Elementary	Salmon dissection (3 classes)
11/19*	Larson Elementary	54	Elementary	Salmon dissection (2 classes)
11/23	Mt. Iliamna Elementary	10	Elementary	Salmon dissection (2 classes)
11/24	Mt. Spurr Elementary	23	Elementary	Salmon dissection (1 class)
11/29	Ravenwood Elementary	63	Elementary	Salmon dissection (2 classes)
11/29	Nunaka Valley Elem.	21	Elementary	Salmon dissection (1 class)
11/30	Lake Hood Elementary	70	Elementary	Salmon dissection (3 classes)
11/30	Sand Lake Elementary	48	Elementary	Salmon dissection (2 classes)
11/30*	Big Lake Elementary	40	Elementary	Salmon dissection (2 classes), life cycle
11/30*	Sherrod Elementary	50	Elementary	Salmon dissection (2 classes)
12/01	Bayshore Elementary	120	Elementary	Salmon dissection (5 classes)
12/01	College Gate Elem.	28	Elementary	Salmon dissection (1 class)
12/01*	Swanson Elementary	50	Elementary	Salmon dissection (2 classes)
12/01*	Sutton Elementary	25	Elementary	Salmon dissection (2 classes)
12/02	Northern Lights ABC	27	Elementary	Salmon dissection (1 class)
12/02	Eagle River Elem.	23	Elementary	Salmon dissection (1 class)
12/02*	Midnight Sun School	40	Elementary	Salmon dissection (2 classes)
12/02*	Finger Lake Elem.	75	Elementary	Salmon dissection (4 classes)
12/03*	Meadow Lakes Elem.	60	Elementary	Salmon dissection (2 classes)
12/03*	Tanaina Elementary	80	Elementary	Salmon dissection (4 classes)
12/06	Lake Hood Elementary	160	Elementary	Salmon dissection (6 classes)
12/06	Orion Elementary	48	Elementary	Salmon dissection (2 classes)
12/07	Turnagain Elementary	38	Elementary	Salmon dissection (2 classes)
12/07	Tudor Elementary	21	Elementary	Salmon dissection (1 classes)
12/07*	Houston HS	25	High School	Salmon dissection (1 classes)
12/08	North Star RTC	15	Elementary	Salmon dissection (1 class)
12/08	Ursa Minor Elementary	50	Elementary	Salmon dissection (2 classes)
01/10	Girdwood School	55	Junior High	Salmon dissection (2 classes)
01/10	Muldoon Elementary	45	Elementary	Salmon dissection (2 classes)
01/11	Gladys Wood Elem.	75	Elementary	Salmon dissection (3 classes)
01/12	Denali Elementary	26	Elementary	Salmon dissection (1 class)
01/12	Campbell Elementary	20	Elementary	Salmon dissection (1 class)
01/18	Rabbit Creek Elem.	70	Elementary	Salmon dissection (2 classes)
01/18	Fairview Elementary	60	Elementary	Salmon dissection (3 classes)
01/19	Taku Elementary	23	Elementary	Salmon dissection (1 class)
01/19	Kincaid Elementary	90	Elementary	Salmon dissection (3 classes)

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Table 3.-Page 3 of 4.

Date	School	# Students	Age Group	Subject
01/20	Kasuun Elementary	75	Elementary	Salmon dissection (3 classes)
01/20	Willow Crest Elem.	44	Elementary	Salmon dissection (2 classes)
01/27*	Sherrod Elementary	25	Elementary	Watershed presentation, design-a-fish
01/28*	Wasilla HS	45	Elementary	Watershed presentation, feeding, volunteers
02/02*	Big Lake Elementary	45	Elementary	Design-a-fish activity
02/02**	Nikiski Elementary	26	Elementary	Salmon dissection (1 classes)
02/03**	Tustumena Elementary	30	Elementary	Watershed presentation
02/04*	Cottonwood Creek El.	30	Elementary	Design-a-fish activity
02/04**	Redoubt Elementary	60	Elementary	Salmon dissection (2 classes)
02/09**	Tustumena Elementary	30	Elementary	Salmon dissection (1 class)
02/25**	Kalifornsky Beach El.	26	Elementary	Salmon dissection (1 class)
03/03**	Chapman Elementary	19	Elementary	Watershed and watershed model presentation
03/04	Mt. View Elementary	20	Elementary	Salmon dissection (1 class)
03/04	Mt. View Elementary	22	Elementary	Salmon dissection (1 class)
03/09**	Sears Elementary	22	Elementary	Salmon dissection (1 class)
03/09**	Sears Elementary	22	Elementary	Salmon dissection (1 class)
03/10**	Ninilchik HS	12	High School	Salmon dissection (1 class) + pike
03/16**	Sterling Elementary	25	Elementary	Watershed model presentation
03/17**	Cook Inlet Academy	17	Elementary	Salmon dissection (1 class)
03/29	King Career Center	14	High School	GASS training
03/29	King Career Center	8	High School	GASS training
03/30	Spring Hill Elem.	75	Elementary	Salmon dissection (3 classes)
03/30	Inlet View Elementary	56	Elementary	Salmon dissection (3 classes)
03/31	King Career Center	14	High School	GASS training
03/31	King Career Center	8	High School	GASS training
04/07*	GASS	25	Adult	Stocked lakes presentation
04/09*	GASS	60	Adult	Stocked lakes presentation
04/12*	Wasilla Boy Scouts	6	Elementary	Fly tying
04/16*	Wasilla Sports Show	8	Adult	Stocked lakes presentation
04/19*	Talkeetna Elementary	16	Elementary	Dissection, watershed, design-a-fish, chemistry
04/20*	Talkeetna Elementary	16	Elementary	Fly tying
04/20**	Susan B. English Sch.	18	Elementary	Salmon dissection (1 class)
04/20**	Susan B. English Sch.	20	Junior High	Salmon dissection (1 class) + pike
04/20**	Susan B. English Sch.	16	High School	Salmon dissection (1 class) + pike
04/26*	Susitna Valley HS	15	High School	Salmon dissection (1 class)
04/26*	Susitna Valley HS	15	Elementary	Salmon dissection (1 class)
04/27**	Soldotna Elementary	21	Elementary	Salmon dissection (1 class)
04/28	Rabbit Creek Elem.	60	Elementary	ASD Salmon Celebration training
04/28**	W. Homer Elementary	30	Elementary	Salmon dissection (1 class) + pike
04/29*	Teeland MS	120	Junior High	Salmon dissection (1 pod)
04/29**	Sterling Elementary	54	Elementary	Salmon dissection (2 classes) + pike
05/02	Sterling Elementary	54	Elementary	KPBSD Salmon Celebration training

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Table 3.-Page 4 of 4.

Date	School	# Students	Age Group	Subject
05/09	Teeland MS	50	Junior High	MSBSD Salmon Celebration training
05/16	Kodiak College	50	Elem/MS/HS	Kodiak Salmon Celebration training
Totals	126		5,554	

* Presentations made by STREAM Program Technician – Palmer office.

** Presentations made by STREAM Program Biologist – Soldotna office.

Teacher Workshops/In-Services

Teachers are becoming more interested in educating their students about salmon and streams. If trained properly, these teachers can assist the department in getting the word out in their classrooms. This becomes even more important when demand for STREAM Program staff class visitations exceeds available time. It is for this reason that the proper training of instructors is a high priority of the STREAM Program. Time is well spent when you can assemble several teachers together at a single time rather than on a one-on-one basis. Teacher workshops are considered formal or informal. Informal training sessions are not required by a school district where in-services are formal training sessions required by a district. Other sessions may involve the training of volunteers to assist at a STREAM Program event.

During 2005, one teacher training event was held and attended by six people (Table 5).

Adopt-A-Stream Program

Adopt-A-Stream (AAS) programs are becoming increasingly popular across the country. These programs enable the general public to care for or monitor a favorite section of stream. In Southcentral Alaska these AAS projects are also used as an educational tool. The STREAM Program works primarily with schools and non-profit groups who wish to establish AAS projects. The program has grown from a single project in 1996 to six projects in 2005 (Table 6) with approximately 364 stream watchers. Participating adult groups are most interested in cleaning up sections of stream.

Schools may participate in AAS projects for educational purposes. Too many similar monitoring projects have promised teachers that their data would be stored in databases or used to fix potential problems in their streams, and historically these promises have never been kept. Many educators lost faith in these programs as a result and the STREAM Program has attempted to restore some of that lost faith in the name of education.

Teachers are informed up front that the purpose of the program is educational and not scientific in nature. It is suggested that schools participate at whatever level they feel comfortable with and that they are collecting water quality data to maintain their own database. This database can then be used to “communicate” findings with other schools in the same watershed or even different areas.

Water quality sampling equipment has been made available to teachers in Anchorage, the Matanuska Valley and the Kenai Peninsula. Instructors who have completed a training course may check the kits out for use at their AAS site. These kits are currently available for check out at the King Career Center (KCC) in Anchorage, the ADF&G area office in Palmer, the Kenai River Center and ADF&G area office in Soldotna, and the ADF&G office in Homer.

Table 4.-Field educational experiences conducted by the ADF&G STREAM Program, 2005.

Date	School/Organization	# Students	Age Group	Location	Subject
07/01*	Kenai 4-H	8	Elem/MS	Russian River	Clam digging
07/29*	Kenai Watershed Forum	15	Adults	Russian River	Russian R. interpretive hike to falls and weir
09/01*	Sterling Elementary	45	Elementary	Russian River	Russian R. interpretive hike to falls and weir
09/02*	Mt. View Elementary	38	Elementary	Russian River	Russian R. interpretive hike to falls and weir
10/05*	Sterling Elementary	24	Elementary	Moose River	Watershed / stream ecology / sampling
10/16*	Central Peninsula Hospital	12	Adults	Slikok Creek	Interpretive hike to confluence with Kenai River
10/19*	Redoubt Elementary	29	Elementary	Soldotna Creek	Watershed / stream ecology / sampling
11/03*	Sterling Elementary	26	Elementary	Moose River	Watershed / stream ecology / sampling
12/07*	Sterling Elementary	26	Elementary	Moose River	Watershed / stream ecology / sampling
01/25*	Sterling Head Start	16	Pre-school	Scout Lake	Ice fishing – 8 coho, 1 RBT
02/02**	Northstar Halfway House	12	Elementary	Finger Lake	Ice Fishing
02/18*	Sterling Head Start	14	Pre-school	Scout Lake	Ice fishing – 5 coho
02/23*	Sterling Elementary	26	Elementary	Moose River	Watershed / stream ecology / sampling
03/16*	Sterling Elementary	6	Elementary	Moose River	Watershed / stream ecology / sampling
05/04*	Sterling Elementary	49	Elementary	Moose River	Watershed / stream ecology / sampling
05/04*	Redoubt Elementary	30	Elementary	Moose River	Watershed / stream ecology / sampling
05/06*	Cook Inlet Academy	16	Elementary	Slikok Creek	Watershed / stream ecology / sampling
05/11*	Homer Flex	12	High School	Anchor River	Watershed / stream ecology / sampling
05/11*	Chapman School	21	Elementary	Anchor River	Watershed / stream ecology / sampling
05/24*	Kalifornsky Beach Elem.	20	Elementary	Slikok Creek	Watershed / stream ecology / sampling
Total	20	445			

* Presentations made by STREAM Program Biologist – Soldotna office.

** Presentation made by STREAM Program Technician – Palmer office

Table 5.-Teacher workshops and in-services conducted by the ADF&G STREAM Program, 2005.

Date	District	Teachers	Location	Subject
09/13	Valdez	6	Valdez	Incubation program, tank set-up, egg take
Total	1	6		

Table 6.-Adopt-A-Stream programs sponsored by the ADF&G STREAM Program, 2005.

Stream	School/Organization	Number Participants	Activity	Road Crossing Sign
Kenai River	Alaska Fly Fishers	90	cleanup	yes
Slikok Cr.	Kalifornsky Beach Elementary	50	clean/monitor	no
Moose River	Sterling Elementary	54	clean/monitor	yes
Campbell Cr.	Gladys-Wood Elementary	30	clean/monitor	no
Ship Creek	Aerospace 3 rd EMS Ground Equip. and Flight	100	cleanup	yes
Ship Creek	3WG Maintenance Operations Center	40	cleanup	yes
Totals	6	364		

Schools may participate at varying levels in activities which may include stream cleanup (litter), stream and habitat surveys, macroinvertebrate (aquatic insect) surveys, water quality testing using chemical test kits, or involvement in an actual small-scale stream restoration project if they determine one may be necessary.

Educational Material Development

As the STREAM Program's educational effort continues to expand so does the need for new materials to meet the demands of the growing program. The STREAM Program continues to design new effective hands-on ways to increase the public's awareness of Alaska's salmon resources.

STREAM Program educational developments from 2005 (Table 7) include:

1. *Alaska's Wild Salmon* books were distributed to teachers and the general public. A total of 1,811 copies was distributed.
2. "First Catch" cards were again printed, laminated and distributed to children catching their first fish during STREAM Program ice fishing events and the Great Alaska Sportsman's Show. A total of 418 cards was distributed.
3. Salmon life cycle posters (184) and egg development vial displays (4) continue to be distributed to instructors.
4. *Primary Salmonids in the Classroom* (19 copies), *A Guide to Classroom Salmon Egg Incubation in Alaska* manual (14) and *Classroom Incubator Setup for Dummies* (30 copies) were distributed to educators.
5. STREAM staff worked with Anchorage School District staff to develop pre and post tests to start evaluation process of ADF&G Aquatic Education Program. Egg-take and dissection surveys are also filled out by teachers.
6. Habitat presentation on the 8 things salmon need to survive was improved – one presentation made.

Table 7.-Educational materials developed by the ADF&G STREAM Program, 2005.

Educational Aid	Comments
Salmon dissection program	756 salmon distributed and utilized by 4,016 students
<i>Alaska's Wild Salmon</i> book	1,811 copies distributed to instructors and public (via trailer)
Primary <i>Salmonids in the Classroom</i> curriculum	19 copies distributed
Salmon life cycle poster	184 copies distributed
Salmon egg/vial displays	4 distributed
Adopt-A-Stream Streamkeepers manual	0 copies to participating AAS schools and agency people
ADF&G incubation program manuals	14 copies distributed
ADF&G incubator setup for dummies manual	30 copies distributed to teachers
First Catch Card program	418 cards distributed to kids catching their first fish
Sport Fish Region V Watershed poster	8 distributed to incubation program instructors
ADF&G game fish species poster	13 copies distributed
Salmon Odyssey CD	1 copy distributed
Program evaluation begins	Staff meet to discuss future and begin evaluation process with pre/post test, egg-take survey and dissection survey
Macroinvertebrate poster board	Photos and descriptions of macroinvertebrates
Macroinvertebrate info sheets	Info sheets on individual macros for sample ID or displays
Intertidal info sheets	Info sheets on individual intertidal species for sample ID or displays
GASS pond volunteer T-shirts and hats	New design "Thank you" for pond and program volunteers
GASS scholarship	\$5,274 from GASS to KCC Natural Resources students
Salmon egg vial displays	Supplied stands to KCC to construct more displays for teachers
Macroinvertebrate vial displays	Collected more samples for vial displays, stands constructed
"8 things" habitat presentation	Improved presentation on 8 things fish have to have to survive
Aquatic Ed. banner	New banner for shows and special events
Button activity	Round labels replace old metal buttons – drawing activity

OUTREACH

Stream Restoration/Habitat Activities

Integration of small-scale stream restoration projects with education has been an effective tool in increasing the public's awareness of salmon and especially the protection of their habitat. These projects are often very time consuming to plan, coordinate and implement, so unfortunately, the STREAM Program continues to decrease its efforts in this area, but will make opportunities available to the public should they become available at a reasonable time and cost.

During 2005, only one restoration/habitat project occurred, and that was to repair a boardwalk along Campbell Creek in Anchorage (Table 8).

Table 8.-Stream restoration/habitat activities (outreach) conducted by the ADF&G STREAM Program, 2005.

Date	Location	No. Volunteers	Man Hours	Coop Agency/Org	Project
09/02/04	Campbell Creek	0	0	ADFG	Repair Folker Street Boardwalk
Total	1	0	0		

Shows and Special Events

Large events or shows (Table 9) are an excellent way to reach out to segments of the population that may not have access to or a specific interest in fish or fishing. The activities at events in which the STREAM Program participates are always very hands-on oriented and easy to understand by the general public.

The STREAM ice fishing program continues to be a popular hands-on activity for instructors with an interest in expanding on their classroom salmon projects. This project serves as an introduction to winter fishing opportunities around Southcentral Alaska with ice fishing events held in Anchorage (Jewel Lake), the Matanuska-Susitna Valley (Finger Lake) and the Kenai Peninsula (Sport Lake). In Anchorage 2,142 students caught 4,979 fish, almost exclusively catchable Chinook salmon *Oncorhynchus tshawytscha*. Of the Anchorage student anglers, 208 caught their first fish ever. In the Matanuska-Susitna Valley 797 student anglers caught 1,140 fish and 129 of these caught their first fish. The Matanuska-Susitna Valley student catch was also dominated by catchable Chinook salmon, but they also caught rainbow trout *O. mykiss*, Arctic char *Salvelinus alpinus* and Arctic grayling *Thymallus arcticus* from Finger Lake. Two hundred and sixty five students on the Kenai Peninsula caught 43 catchable Chinook salmon and four of those students caught their first fish.

The “Salmon Celebration” program continued in 2005. All of the Salmon Celebrations are associated with a spring fish release with the exception of the Copper River/Prince William Sound area.

The two Anchorage events had a combined attendance of 2,720 students. The first Anchorage Salmon Celebration was held in conjunction with the release of classroom incubation coho fry by participating Anchorage area schools. The second event was a districtwide event where Anchorage school students were given coho smolt to release as part of ADF&G’s urban coho stocking program. The smolt came from the Ft. Richardson Hatchery.

The Salmon Celebration held in Kodiak was again held at the city boat harbor “spit” area where it has become a more community-oriented event. One thousand one hundred students attended the Salmon Celebration this year.

The Matanuska-Susitna Valley Salmon Celebration was a combined fish release event. Students who had raised coho salmon in their classrooms released their fish into Matanuska Lake. Other districtwide students who were in attendance received catchable rainbow trout from Elmendorf Hatchery in Anchorage to release as part of the annual stocking program. Overall attendance was 1,232 students.

Table 9.-Shows and special events attended or sponsored by the ADF&G STREAM Program, 2005.

Date	Event	Location	Attendance	# Volunteers	Purpose	Comments
12/09	Mat-Su School District ice fishing	Finger Lake Palmer	405	12 (48 man hours)	winter fishing opps.	480 fish, 45 first catch cards
12/10	Mat-Su School District ice fishing	Finger Lake Palmer	392	5 (20 man hours)	winter fishing opps.	660 fish, 84 first catch cards
12/13	Anchorage School District ice fishing	Jewel Lake Anchorage	524	8 (32 man hours)	winter fishing opps.	1,487 fish caught
12/14	Anchorage School District ice fishing	Jewel Lake Anchorage	599	14 (56 man hours)	winter fishing opps.	1,541 fish caught
12/15	Anchorage School District ice fishing	Jewel Lake Anchorage	516	14 (56 man hours)	winter fishing opps	1,190 fish caught
12/16	Anchorage School District ice fishing	Jewel Lake Anchorage	503	12 (48 man hours)	winter fishing opps	761 fish caught, 208 first catch cards issued for entire event
01/06	Kenai Peninsula School District ice fishing	Sport Lake Soldotna	265	2 (8 man hours)	winter fishing opps	43 fish caught, 4 first catch cards issued
01/21	Sport Fish Regulations Art Contest	Southcentral region	351	0	student artwork regulation covers	Annalise Theisen – 1st place
01/21	Sport Fish Regulations Art Contest	Bristol Bay region	19	0	student artwork regulation covers	Malcolm Enoch – 1st place
01/21	Sport Fish Regulations Art Contest	Kodiak region	61	0	student artwork regulation covers	Princess Juliet Hill Ramos – 1st place
02/11**	Becoming an Outdoor Woman	Solid Rock Bible Camp Soldotna	12	0	Fishing opps.	Ice fishing at Sport Lake – 0 fish caught
02/12**	Becoming an Outdoor Woman	Solid Rock Bible Camp Soldotna	6	0	winter fishing opps	Fly tying – 15 patterns
02/12**	Becoming an Outdoor Woman	Solid Rock Bible Camp Soldotna	17	0	Fishing opps.	Ice fishing at Sport Lake – 15 fish caught
02/13**	Becoming an Outdoor Woman	Solid Rock Bible Camp Soldotna	6	0	Fishing opps.	Fly tying – 17 patterns, Overall attendance for BOW event = 125
04/02	Kids Fishing Day	Homer	125	0	ADF&G booth - Watersheds	Fish/macrobenthos ID and fly tying (rainbow smolt pattern)
04/07	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	315		ADF&G/ KCC Kids Fishing Pond	KCC volunteers–pond, fish cleaning, 0 1st catch cards issued
04/08	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	98		ADF&G/ KCC Kids Fishing Pond	ASD Intensive Needs special fishing event at pond
04/08	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	572		ADF&G/ KCC Kids Fishing Pond	KCC volunteers - pond, fish cleaning, 21 1st catch card issued
04/09	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	1,206		ADF&G/ KCC Kids Fishing Pond	KCC volunteers–pond, fish cleaning, 25 1st catch cards issued
04/10	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	668	42 (441 man hours)	ADF&G/ KCC Kids Fishing Pond	KCC volunteers–pond, fish cleaning, 31 1st catch cards issued
04/22	ASD - KCC recognition presentation	ASD King Career Center	22	0	Recognize KCC class for volunteering	volunteer shirts and hats awarded
04/27	ASD - KCC scholarships presentation	ASD King Career Center	125	0	Present GASS scholarships to Natural Resource Class students	Lindsey Archer – \$1,000 Paul Campbell – \$1000 Brittany Cogdill - \$1000 Sandi Smith - \$1000
05/03	Kenai Pen. Salmon Celebration	Johnson Lake - Kasilof	502	54 (270 man hours)	salmonid/ fishing awareness	hatchery trout release and hands-on activity booths – 21 classes

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Table 9.-Page 2 of 2.

Date	Event	Location	Attendance	# Volunteers	Purpose	Comments
05/06	Anchorage Salmon (fry) Celebration	Taku-Campbell Lake - Anchorage	1,670	62 (310 man hours)	salmonid/ fishing awareness	classroom fry release and hands-on activity booths – 70 classes
05/10	Mat-Su Salmon Celebration	Matanuska Lake - Palmer	1,232	53 (265 man hours)	salmonid/ fishing awareness	hatchery trout/school fry release and hands-on activity booths – 55 classes
05/17	Kodiak Island Salmon Celebration	Kodiak boat harbor “spit”	1,100	50 (250 man-hours)	salmonid/ fishing awareness	hands-on activity booths – release off site (Island Lake) – 42 classes
05/26	Anchorage Salmon (smolt) Celebration	Campbell Creek - Anchorage	1,050	62 (310 man hours)	salmonid/ fishing awareness	smolt release and hands-on activity booths - 43 classes
06/11*	Kenai River Festival	Kenai	500	8 (48 man hours)	salmonid awareness	hands-on activity booths and fish t-shirt printing
06/12*	Kenai River Festival	Kenai	400	8 (48 man hours)	salmonid awareness	hands-on activity booths and fish t-shirt printing
07/19 – 07/21	Dillingham Salmon Camp	Dillingham	20	0	Stream ecology	Stream sampling, watersheds, dissections, fly tying/casting
07/29 – 07/31	Imaginarium Fly Fishing Camp	Anchorage	32	0	Stream ecology	Stream sampling, watersheds, dissections, fly tying/casting
Total	31		13,313	406 (2,210 man hours)		

* Presentations made by STREAM Program Biologist – Soldotna office.

** Presentations made by STREAM Program Technician – Palmer office.

The Kenai Peninsula Celebration had an attendance of 502 students. Students attending from around the Kenai Peninsula School District were given catchable rainbow trout from the Ft. Richardson Hatchery to release into Johnson Lake in Kasilof. These catchable fish were also part of the stocking allocation for that lake.

After releasing their fish, classes visited the hands-on booths where they learned more about various salmon, stream and fishing topics. The activity booths included salmon life cycle rubber stamps, macroinvertebrate touch tank, live fish display, button making, salmon habitat “wheel of misfortune,” watershed model, animal skulls, hides and tracks, salmon anatomy puzzle, handouts (including fishing regulations) and fly and spin casting stations. Statewide Aquatic Resources Coordination Unit (SARCU) staff also attended the Anchorage events this year and set up an activity booth.

Overall attendance for all the Salmon Celebration events was 5,554 students. Two hundred and eighty one volunteers made these events possible this year, including students from Rabbit Creek Elementary school and King Career Center in Anchorage; Teeland Middle and Wasilla High schools in the Matanuska-Susitna Valley; Sterling Elementary school in Soldotna; and Kodiak High School, Kodiak Christian, St. Mary’s, Kodiak Learning Center, St. Innocent’s and Old Harbor schools in Kodiak.

Other major events this past year included the Kid’s Fishing Pond with local celebrity helpers at the Great Alaska Sportsman’s Show (GASS) (2,859 children) and the Kenai River Festival (900 children). Staff also traveled to Dillingham and Homer to conduct outdoor aquatic education or fishing classes.

GASS organizers with Aurora Productions donated 100% (\$5,274) of the children’s show admission fee to the King Career Center’s Natural Resources Class for manning the Kid’s Fishing Pond at the show. Scholarships were then awarded to college bound students interested in pursuing careers in fish or wildlife with the donation.

This year's Sport Fish regulations cover art contest was held in three regions: Southcentral (combined Cook Inlet/Prince William Sound area), Bristol Bay and Kodiak. Four hundred and thirty one entries were received from the three areas and fishing poles and other small prizes were awarded to the first through third place winners.

The STREAM Program also teamed up again with the ADF&G Division of Wildlife Conservation to work with women who wanted to learn about outdoor hunting and fishing skills through the nationally recognized "Becoming an Outdoor Woman" Program. STREAM Program staff coordinated the event and held sessions to teach the attendees how to tie flies and ice fish. One hundred and twenty five women attended this event.

Many volunteers make these large events possible. In 2005, 406 volunteers spent at least 2,210 man-hours ensuring that events were a success. People participating in or attending this year's events numbered 13,313.

Aquatic Education Classroom Trailer

In FY02 the STREAM Program received funding through the Wildlife Conservation and Restoration Program (WCRP) to construct a 40-foot aquatic education classroom trailer. During FY02 and FY03 the trailer design and bid process occurred. The Department of Transportation (DOT) took over the bid process after STREAM Program staff worked with trailer manufacturers to design the trailer. The trailer was delivered to Alaska in March 2003 and a mural depicting salmon and their life cycle was completed at the end of June 2003 by well-known Alaska artist Ray Troll and his crew.

Several partners contributed to the trailer project. Sponsors who contributed \$10,000 to the trailer project in FY02 include the Kenai River Sportfishing Association and Phillips Alaska. In FY03, the Fred Meyer Foundation also contributed \$10,000 to the project.

During 2005, the trailer made appearances at 31 events and had 18,936 visitors or project participants (Table 10). Many activities were conducted in the trailer for the public as well as school groups. These included macroinvertebrate studies, fly tying, tide pool organism touch tanks and fish t-shirt printing, as well as a variety of other hands-on activities.

Media Coverage

The media (Table 11) continues to play an important role in getting the STREAM Program word out to the public. Anchorage area media are very interested in the various projects that the STREAM Program conducts and although most stories are considered general interest, it still assists the department in getting the word out. The positive nature of these stories can only help a department whose media image, unfortunately, is oftentimes negative. Media in other areas of the state and even the country are becoming interested in STREAM Program activities as it expands into new areas of the Southcentral and Interior regions. In 2005 STREAM Program events or topics were covered 55 times. The STREAM Program will continue to take advantage of the media when there is interest in helping the department get more information out to the public.

Table 10.-Aquatic Education Trailer activities, 2005.

Date	City	Event	Attendance	Age	Activities
07/03	Homer	KBRR Dedication	123	All	Fish printing, salmon hats, salmon lifecycle video
07/17	Anchorage	Oceans Festival	720	All	Live fish, aquatic Insects, KBRR plankton, hands on activities
07/24	Anchorage	Governor's Picnic	1,127	All	Live fish, frogs, aquatic insects, activities
08/17	Seward	Seward Silver Salmon Derby	445	All	Live fish, aquatic insects, hands on salmon activities, regulations
08/20	Homer	Kids Fishing Day	125	All	Live aquatic insects, fly tying, plankton, tide pooling, Saber tooth salmon hat, regulations
08/30	Palmer	AK State Fair	2,000	All	Live fish, aquatic insects, t-shirt prints, handouts
09/11	Whittier	Kids Fishing Day	72	All	Macroinvertebrates, live fish, hands on activities, regulations
09/12	Seward	KPBSD Egg Take	219	Elementary	Macroinvertebrates, 3-D glasses, salmon ID, salmon hat
04/07	Anchorage	GASS	500	All	Fly tying, t-shirt prints
04/08	Anchorage	GASS	500	All	Fly tying, t-shirt prints
04/09	Anchorage	GASS	900	All	Fly tying, t-shirt prints
04/10	Anchorage	GASS	600	All	Fly tying, t-shirt prints
04/15	Soldotna	Soldotna Sports Show	600	All	Live fish, hands on activities, permits
04/16	Soldotna	Soldotna Sports Show	600	All	Live fish, hands on activities, permits
04/17	Soldotna	Soldotna Sports Show	400	All	Live fish, hands on activities, permits
04/22	Fairbanks	Fairbanks Sports Show	400		Fish printing, regulations, handouts
04/23	Fairbanks	Fairbanks Sports Show	500	All	Fish printing, regulations, handouts
04/24	Fairbanks	Fairbanks Sports Show	700	All	Fish printing, regulations, handouts
05/03	Soldotna	KPBSD Fish Release	502	Elementary	Macroinvertebrates, fish ID
05/04	Soldotna	Moose River Sampling	49	Elementary	Macro collection and ID, juvenile fish ID
05/06	Anchorage	ASD Fry Release	1,670	Elementary	Macroinvertebrates, fish ID
05/10	Palmer	MSBSD Fish Release	1,232	Elementary	Macroinvertebrates, fish ID
05/16	Kodiak	Open House	24	All	Tide pool touch tanks/displays, macroinvertebrates, salmon hats
05/17	Kodiak	KBSD Fish Release	1,100	Elementary	Tide pool touch tanks/displays
05/21	Seward	Kids Fishing Day	100	All	Macroinvertebrates, live fish, hands on activities, regulations
05/26	Anchorage	ASD Smolt Release	1,050	Elementary	Macroinvertebrates, fish ID
06/09	Haines	Haines Open House	115	All	Live fish, frogs, macroinvertebrates, Chucky Chum, handouts, regulations
06/11	Juneau	Juneau Fishing Day	2,000	All	Live Fish, macroinvertebrates, fly tying
06/14	Juneau	Juneau Open House	75	All	Live Fish, macroinvertebrates, fly tying
06/16	Skagway	Skagway Open House	121	All	Live Fish, macroinvertebrates, fly tying
06/25	Anchorage	Kids Fishing Day	367	All	Live fish, macroinvertebrates, adult fish ID, handouts, Chucky Chum activity
Totals	31				

Requests for Information or Materials

Table 12 documents requests for information or materials during 2005. In 2005, the STREAM Program responded to 1,035 requests. These requests ranged from phone information to loans of scientific or educational materials.

Program Contributions

Many agencies, schools, businesses, organizations and individuals have made contributions to the STREAM program to either support or enhance activities. It is important to recognize and thank these people for their generous support. This year's contributors include:

Great Alaska Sportsman's Show:

ASD King Career Center – manpower to run pond

SAM's Club (\$75), Anchorage Cold Storage (\$150) and Bill's Distributing (\$250) – soft drinks for volunteers

Arctic Roadrunner (\$3250 – 500 burger cards), Classic Toys (\$1,000), Sportsmen's Warehouse (\$650) - pond prizes.

KTUU Channel 2 (John Carpenter, Lars Peterson), KTVA Channel 11 (Lauren Maxwell), KIMO Channel 13 (Ty Hardt, Cary Carrigan, Liz Hill, Annie Roach, Rebecca Palsha, Bob Mallory), MAGIC 98.9 FM (Marcus Lewis, April Powers, Brian Ross), Iditarod musher Martin Buser, Trill Webster, Mayor Mark Begich, ASD Superintendent Carol Comeau – Celebrity assistance at the Kid's Fishing Pond.

Anchorage Fire Department – truck to fill pond

Classroom Salmon Egg Incubation Program and Salmon Celebrations:

Kodiak School District (\$5,000) – Flights for 2 crew to rural villages

Rabbit Creek Elementary and King Career Center (ASD), Teeland Middle School and Wasilla HS (MSBSD), Sterling Elementary (KPBSD), Kodiak High School, St. Mary's School, Kodiak Christian, Kodiak Learning Center, St. Innocent's Academy and Old Harbor School (Kodiak) – volunteer staffing

Safeway and Dan Rohrer – Food, drinks and staff for Kodiak Salmon Celebration

MAGIC 98.9 FM (Dave Flavin), Clear Channel radio staff (Julie Shumway), KOOL 97.7 FM/KIMO 13 (Cary Carrigan), ASD Superintendent Carol Comeau, ASD Elementary Education head Patricia McCrae – Celebrity assistance at the ASD smolt release and Salmon Celebration

Miscellaneous:

Harbor Seafoods – 500 pink salmon for school dissections.

Table 11.-Media coverage of the ADF&G STREAM Program, 2005.

Date	Media Organization	Event	Coverage Type
07/17	KTUU 2	AK Oceans Festival - trailer	Television news
07/20	Peninsula Clarion	KP Watershed forum hike	News release
09/18	Anchorage Daily News	Whittier Salmon Derby/trailer	News release
09/19	Anchorage Daily News	ASD egg take	News release
09/20	KTUU 2	ASD egg take	Television news
09/20	KTBY 4	ASD egg take	Television news
09/20	KTVA 11	ASD egg take	Television news
09/20	KIMO 13	ASD egg take	Television news
09/21	Anchorage Daily News	ASD egg take	Newspaper photo/caption
10/03	Valley Frontiersman	MSBSD egg take	Newspaper article
10/06	Valdez Star	Valdez egg take	Newspaper article
10/06	Education Week	ASD egg take	Periodical photo/caption
10/07	Peninsula Clarion	KPBSD egg takes	News release
10/25	Kodiak Daily Mirror		"On the Dock"
10/26	Kodiak Daily Mirror	Fish dissection – East Elementary	Newspaper article
11/09	Peninsula Clarion	BOW registration	News release
11/18	Kodiak Daily Mirror	Kodiak egg take – Buskin River	Newspaper article
11/21	Anchorage Daily News	SF regulations art contest	News release - Outdoors
11/21	Anchorage Daily News	BOW event	News release - Outdoors
12/10	Peninsula Clarion	BOW	Newspaper article
12/12	Anchorage Daily News	SF regulations art contest	News release - Outdoors
12/12	Anchorage Daily News	BOW event	News release - Outdoors
12/13	KTUU 2	ASD ice fishing event	"Morning Edition" TV news
12/14	KTUU 2	ASD ice fishing event	Television news
12/15	KTVA 11	ASD ice fishing event	Television news
12/15	KIMO 13	ASD ice fishing event	Television news
12/16	Anchorage Daily News	ASD ice fishing event	Newspaper photo/caption
12/26	Anchorage Daily News	BOW event	News release - Outdoors
01/03	Peninsula Clarion	KPBSD ice fishing event	News release
01/12	Peninsula Clarion	KPBSD ice fishing/incubation	News article
01/16	FBKS Daily News Miner	KPBSD ice fishing/incubation	News article
01/17	Clear Channel Radio	BOW event	PSA
01/17	Clear Channel Radio	BOW event	Radio PSA
01/17	Clear Channel Radio	Fishing license purchase	Radio PSA
01/17	Clear Channel Radio	Fishing opportunities	Radio PSA
02/14	Anchorage Daily News	KPBSD ice fishing/incubation	News article
03/04	Peninsula Clarion	BOW	Staff "thank you"
03/15	KEAG 97.3 FM	GASS Kids Fishing Pond	Radio promotion
03/15	KWHL 106.5 FM	GASS Kids Fishing Pond	Radio promotion
04/03	Anchorage Daily News	GASS pond	Newspaper advertisement
04/03	Anchorage Daily News	GASS pond and trailer	Newspaper supplement
04/05	Peninsula Clarion	KPBSD Salmon Celebration	News release
04/11	Magic 98.9 FM	GASS Kids Fishing Pond	Radio promotion/wrap-up
05/01	Anchorage Daily News	SC Salmon Celebrations	News release - Outdoors
05/06	KIMO 13	ASD fry release/Salmon Celebration	Television news
05/09	KSRM Radio	Sterling Elem. Stream sampling	Radio story
05/12	Anchorage Daily News	MSBSD Salmon Celebration	Newspaper photo/caption
05/16	Anchorage Daily News	MSBSD Salmon Celebration	Mat-Su edition article
05/13	101.1 FM - Kodiak	Kodiak Salmon Celebration	Radio PSA/story
05/16	Kodiak Daily Mirror	Kodiak Salmon Celeb./open house	Newspaper article
05/17	Laine Welch - Kodiak	Kodiak Salmon Celebration	Radio interview
05/24	KEAG 97.3 FM	ASD smolt/Salmon Celebration	Radio promotion
05/26	KTVA 11	ASD smolt/Salmon Celebration	Television news
05/26	KIMO 13	ASD smolt/Salmon Celebration	Television news
05/27	Anchorage Daily News	ASD smolt/Salmon Celebration	Newspaper photo/caption
Total	55		

Table 12.-Requests for information, materials and equipment from the ADF&G STREAM Program, 2005.

Requests for materials or information	1,027
Educational material loans	6
Scientific or field equipment loans	2
Total	1,035

FUTURE GOALS

Education and Outreach

Future program goals for education and outreach are:

1. Expand the classroom salmon egg incubation program where requested in all areas. Concentrate on expansion on Lower Kenai Peninsula and Prince William Sound.
2. Continue to investigate potential for Bristol Bay area education.
3. Maintain or increase participation level in the school dissection program.
4. Continue to investigate and take advantage of community funding sources or support to meet the demands of the expanding STREAM Program.
5. Expand duties of seasonal technician in all areas.

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